



Seabasing In Support of Major Combat Operations Ashore Phase II

SAG Discussion

24 October 2007

**Sponsored by OPNAV N8 /
MCCDC**



Tasks

Tasks

1. Research and Synopsis
2. Study Definition
3. Analysis Development and Execution
4. Life-cycle costs
5. Synthesis of Results
6. Written Report

Deliverables

Study POA&M

Draft Briefing

Final Briefing

Written Report

Award + 1 week

7 December

14 December

31 January



Guidance

- 1. N8 / MCCDC sponsored study**
- 2. Use program of record as defined in the PB-08 thirty year shipbuilding plan**
- 3. Use specified amphibious/MPF(F) force mix alternatives**
- 4. Use approved scenarios and concepts of employment and operations**
- 5. Leverage previous studies**



POA&M



Task	Date	Action
Review POA&M, Capabilities, Events	Oct 24	All
Task 2 Study Definition MOE & MOP (Draft)	Nov 1	WBB
High level model formulation	Nov 1	WBB
Events and Event Stream (Draft)	Nov 1	SAG
Events & Event Stream complete	Nov 8	SAG
Model Operational & Costing Metrics	Nov 8	WBB
Modeling Offsite (All Day)	Nov 14	WBB
Metrics, Global Posture,		&SAG
Model Formulation/Demo		
Event Streams		
Task 1 Research & Synopsis complete	Nov 16	WBB
Flag Update (if required)	Nov 20	WBB
Condensed Offsite Topics		
Task 3 Study Analysis initial insights	Nov 29	WBB
Task 4 Life-Cycle Costs	Nov 29	WBB
Task 5 Synthesis of Results & Draft Brief	Dec 7	WBB
Task 5 Final Brief (Flag level?)	Dec 14	WBB
Task 6 Written Report Initial Draft	Jan 18	WBB
Task 6 Written Report Final	Jan 31	WBB



Objective

Assess the ability of alternative amphibious and MPF(F) force mixes to respond to potential events across the spectrum of expeditionary operations

	Amphibious ¹			MPF(F)				
	LHAR/D	LPD	LSD	LHAR/D	MLP	LMSR	T-AKE	T-AK
Baseline	9	9	12	3	3	3	3	2
Alt 1 (A)	11	11	12	3	3	3	3	2
Alt 1a	11	9	12	3	3	3	3	2
Alt 2	11	11	12	1	3	4	3	2
Alt 2a	11	9	12	1	3	4	3	2
Alt 3	11	11	12	0	3	4	3	2
Alt 3a (B-2)	11	9	12	0	3	4	3	2
Alt 4	10	11	12	2	3	3	3	2
Alt 4a	10	9	12	2	3	3	3	2

¹ USMC position is 11/11/11. LSD numbers reflect legacy platforms.

Other Naval / Joint resources fixed at POR levels



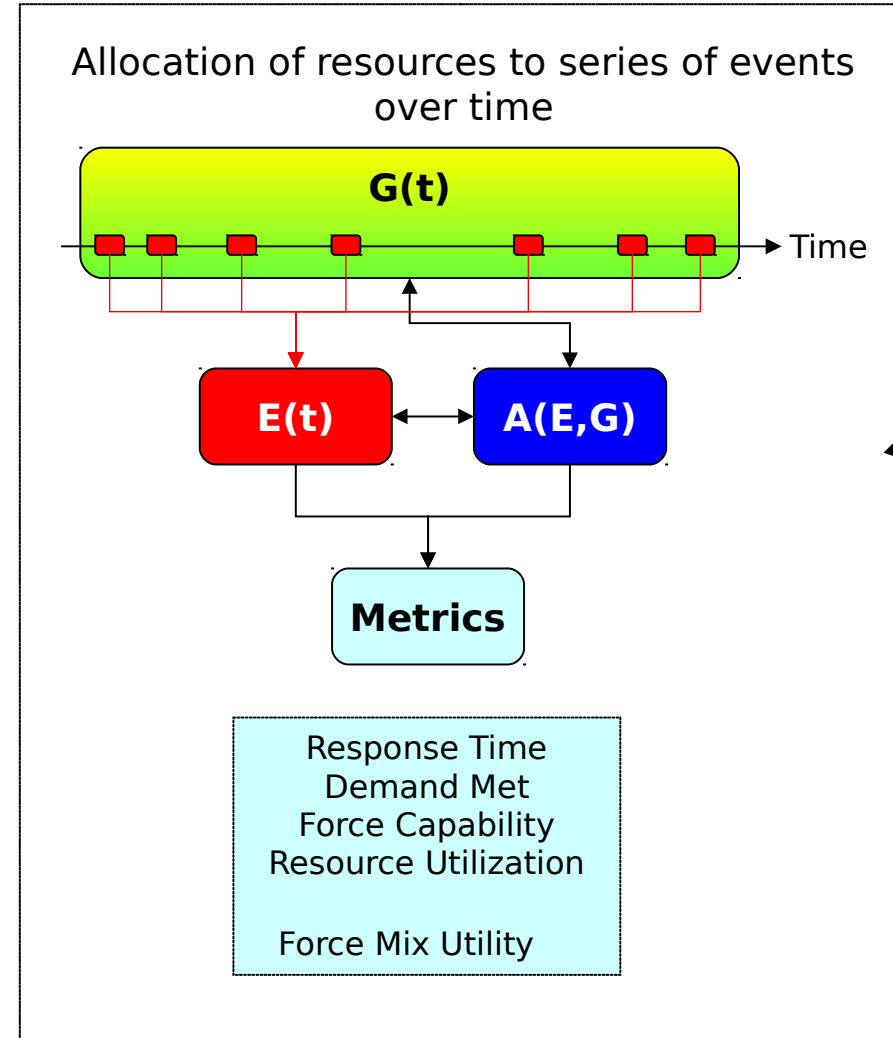
Expeditionary Ship Assumptions

- **Amphibious ships**
 - **MCO: USMC requirement for 2.0 MEB AE operationally available lift (10/10/10)**
 - **Presence: 9 ESGs and 7 MEUs**
 - **Ships are a resource to support TSC or crisis response**
 - **Basing**
 - **ESG ships at current bases in Japan, San Diego, Norfolk**
 - **Non-ESG ships at current bases and/or other locations (e.g. Guam/Hawaii)**
- **MPF(F) Squadron**
 - **Ships are a resource to support TSC or crisis response**
 - **Basing: Guam**



Model Elements

- **Global posture [G(t)]**
 - **Resources**
 - Capability sets
 - Basing
 - Speed
 - **Location**
 - Weekly location
 - **Task status**
 - **Readiness for Tasking**
 - **Return to base**
- **Events [E(t)]**
 - Frequency, location, duration
 - Relative priority
 - Required capability sets
 - Response time objective
- **Allocation [A(E,G)]**
 - Resource applicability
 - Resource availability
 - Reallocation following event termination





Event List

Event List											
Event	ID Week	Start Week	Location	Duration (wks)	End Week	Priority	C ₁	C ₂	C ₃	C ₄	Response Goal (wks)
e ₁₁	8	8	C19	2	9	1	1.00	16.00	1.25	0.25	0.3
e ₁₂	11	13	S16	6	17	2	3.00	12.00	0.75	1.00	1.5
e ₁₃	26	34	P32	39	65	3	1.00	16.00	1.25	0.25	8.0
e ₁₃₁	26	36	P32	29	65	3	1.00	16.00	1.25	0.25	0.0
e ₁₃₂	36	48	P32	17	65	3	1.00	16.00	1.25	0.25	0.0
e ₁₄	40	41	E18	4	44	3	2.00	16.00	2.00	0.25	1.0
e ₁₅	52	54	C15	9	61	2	3.00	24.00	2.00	1.25	2.3
e ₁₆	68	72	P25	14	82	2	3.00	12.00	0.75	1.00	3.5
e ₁₇	85	86	E22	5	90	3	3.00	12.00	0.75	1.00	1.3
e ₁₈	95	102	P15	26	121	1	30.00	240.00	10.00	1.00	6.5

Assigned					
Ship 1	Det NLT	Ship 2	Det NLT	Ship 3	Det NLT
LPD-X	16	LSD-Y	16		
MLHD-X	31				
LPD-X	36				
LPD-Y	48				
LPD-Z	65				
MLHD-X	50	MLP-Y	50	LMSR-Z	
LHD-X	70	LPD-Y	70	LSD-Z	70
LHAR-X	90	LSD-Y	84		
LHD-X	100				

Allocation module is called for new events and event termination

- New Events:

- Allocate resources using goaling linear program with penalty functions
- Update global posture matrix
- Dynamically generate continuing events for persistent events

- Termination: release resources and update global posture



Global Posture

Fleet	GROUP	Ship	Speed	C1	C2	C3	C4	Base	Week 7				Week 8				Week 9				Week 10			
									LOC	Task Status	RFT (wks)	RTB (wk)	LOC	Task Status	RFT (wks)	RTB (wk)	LOC	Task Status	RFT (wks)	RTB (wk)	LOC	Task Status	RFT (wks)	RTB (wk)
L	ESG4	LHAR-2	18	3.00	0.00	0.50	1.00	Norfolk	C1		0.57	20	C1		0.04	20	C1		0.04	20	C1		0.04	20
L	ESG4	LPD-19	18	1.00	8.00	0.50	0.25	Norfolk	C1		0.04	20	C19	1	0.29	20	C19	1	0.29	20	C2		0.04	20
L	ESG4	LSD-43	18	0.00	8.00	0.75	0.00	Norfolk	C1		0.04	20	C19	1	0.29	20	C19	1	0.29	20	C2		0.04	20
L	ESG6	LHD-5	18	3.00	12.00	0.75	1.00	Norfolk	N1		0.57		N1		0.57		N1		0.57		N1		0.57	
L	ESG6	LPD-21	18	1.00	8.00	0.50	0.25	Norfolk	N1		0.57		N1		0.57		N1		0.57		N1		0.57	
L	ESG6	LSD-44	18	0.00	8.00	0.75	0.00	Norfolk	N1		0.57		N1		0.57		N1		0.57		N1		0.57	
L	ESG8	LHD-7	18	3.00	12.00	0.75	1.00	Norfolk	N1		1.00		N1		1.00		N1		1.00		N1		1.00	
L	ESG8	LPD-23	18	1.00	8.00	0.50	0.25	Norfolk	N1		1.00		N1		1.00		N1		1.00		N1		1.00	
L	ESG8	LSD-48	18	0.00	8.00	0.75	0.00	Norfolk	N1		1.00		N1		1.00		N1		1.00		N1		1.00	
L	ESG2	LHD-1	18	3.00	12.00	0.75	1.00	Norfolk	N1		12		N1		11		N1		10		N1		9	
L	ESG2	LPD-17	18	1.00	8.00	0.50	0.25	Norfolk	N1		12		N1		11		N1		10		N1		9	
L	ESG2	LSD-51	18	0.00	8.00	0.75	0.00	Norfolk	N1		12		N1		11		N1		10		N1		9	

Global Posture Matrix

- All resources and associated capability sets
- Weekly location, task status, readiness for tasking, and planned return to base projected out 24 months
- Matrix updated by allocation module for new events and event termination



Asset and Event Capabilities

Cap.	Description	Capability Metric	Resource Values
C1	Assault Support	Air throughput in TBD equiv.	TBD
C2	Close Air Support	Sustained sorties (targets?) per day	0-100
C3	NSFS	Sustained targets per day?	TBD
C4	Air ISR (incl UAS)	Coverage per day (hours/square miles)?	TBD
C5	Surface Ship to Shore	Surface throughput in LCAC SLEP equiv.	0-6
C6	Medical	Resuscitative medical care in OR equiv.	0-6
C7	Sea Shield	Multi-threat defensive capability in CG equiv.	0-1
C8	MIO Compliant	Number of teams deployable simultaneously	0-2
C9	MIO Non-Compliant	Number of teams deployable simultaneously	0-2
C10			
C11			